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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/604,613

08/05/2003

Chiu-Tsung Huang

11039-US-PA

1612

31561

7590

05/18/2004

EXAMINER

TRAN, TAN N

JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE

7 FLOOR-1, NO. 100

ROOSEVELT ROAD, SECTION 2

TAIPEI, 100

TAIWAN

ART UNIT

PAPER NUMBER

2826

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/604,613

Applicant(s)

HUANG ET AL.

Examiner

TAN N TRAN

Art Unit

2826

Am

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. If applicant is aware of any relevant prior art, he/she requested to cite it on form PTO-1449 in accordance with the guidelines set forth in M.P.E.P. 609.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Taiwan on 05/14/2003. It is noted, however, that applicant has not filed a certified copy of the Taiwan application as required by 35 U.S.C. 119(b).

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13,14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 13, line 10, "a silicon oxide/silicon nitride/silicon oxide layer" is unclear as to whether it is being referred to the silicon oxide/silicon nitride/silicon oxide composite layer or the silicon oxide layer, silicon nitride layer, and silicon oxide layer.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 13-19 are rejected under 35 U.S.C. 102(a) as being anticipated by Lee et al. (2003/0042531).

With regard to claims 13,14, Lee et al. discloses a memory having an insulation layer 22 disposed on the substrate layer 10; a silicon stripe layer 26 disposed on the insulation layer 22; a first control gate 36A and second control gate 36B disposed respectively on sidewalls of the silicon stripe layer 26; the source and drain regions formed in the silicon stripe layer 26 beside both sides of the first control gate 36A and second control gate 36B; oxide/nitride/oxide layer (42,40,44) disposed between the first control gate 36A and the silicon stripe 26 and between the second control gate 36B and silicon stripe 26. (Note see attachment #1, lines 3,4, paragraph 0058, page 2, fig. 6d of Lee et al.). It is inherent that oxide/nitride/oxide material (42,40,44) to be

a silicon oxide/silicon nitride/silicon oxide mater because Lee et al's the structure is SONOS in order to obtain high K dielectric constant.

With regard to claims 15-19 Lee et al. discloses a memory having an insulation layer 22 disposed on the substrate layer 10; a silicon stripe layer 26 disposed on the insulation layer 22; a first control gate 36A and second control gate 36B disposed respectively on sidewalls of the silicon stripe layer 26; the source and drain regions formed in the silicon stripe layer 26 beside both sides of the first control gate 36A and second control gate 36B; a nitride layer 40 serves as a charge trapping layer disposed between the first control gate 36A and the silicon stripe layer 26 and between the second control gate 36B and the silicon stripe layer 26; a first dielectric layer 42 disposed between the nitride layer 40 and the silicon stripe layer 26; and a second dielectric layer 44 disposed between the nitride layer 40 and the second control gate 36B. (Note see attachment #1, lines 3,4, paragraph 0058, page 2, fig. 6d of Lee et al.). It is inherent that oxide/nitride/oxide material (42,40,44) to be a silicon oxide/silicon nitride/silicon oxide mater because Lee et al's the structure is SONOS in order to obtain high K dielectric constant.

Conclusion

6. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Tan Tran whose telephone number is (571) 272-1923. The examiner can normally be reached on M-F 8:30AM-5PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for after final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

TT

May 2004


Minhloan Tran
Primary Examiner
Art Unit 2826